

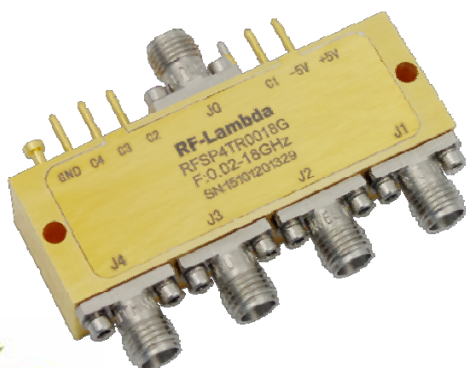


RF-LAMBDA

LEADER OF BROADBAND SOLUTIONS

RFSP4TR0018G

Reflective 0.02-18GHz Coaxial SP4T Switch



Features

- Ultra Wide Band Operation 0.02-18GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Temperature Range -45°C~+85°C
- Customization available upon request

Electrical Specifications, TA = +25° C, With Vdd = +5V, Vss = -5V & VCTL = 0/ +5V

Description	PN: RFSP4TR0018G										
	SP4T Reflective Switch										
	Low Power Cold Switching										
Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units	
Frequency Range	0.02~6			6~12			12~18			GHz	
Insertion Loss		2.2	3.0		3.8	4.3		4.2	4.5	dB	
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C	
Isolation	60	80		70	85		70	85		dB	
Input VSWR		1.5	2		1.5	2		1.5	2		
Output VSWR		1.5	2		1.5	2		1.5	2		
RF Input power	30				30		30			dBm	
Power Dissipation (CW)		0.3			0.4			0.5		W	
0.1dB Compression Po.1dB		27			27			26		dBm	
IM3		40			40			40		dBc	
IIP3		50			50			50		dBm	
Switching Speed	100									ns	
Weight	1.7									ounces	
Impedance	50									Ω	
Biasing(+5V/-5V)	160/50									mA	
Input /Output Connector	SMA-Female/SMA-Female (Standard)										
Finishing	Gold Plating										
Material	Aluminum										
Seal	Hermetically Sealed (optional)										

Reflective Coaxial Single Pole Four Throw Switch 0.02-18GHz



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Absolute Maximum Ratings

Biasing	$\pm 5V \pm 5\%$
TTL Control Voltage	0~0.8V/2~5V
Operating Temperature(°C)	-45 ~ +85
Storage Temperature(°C)	-55 ~ +125

Ordering Information

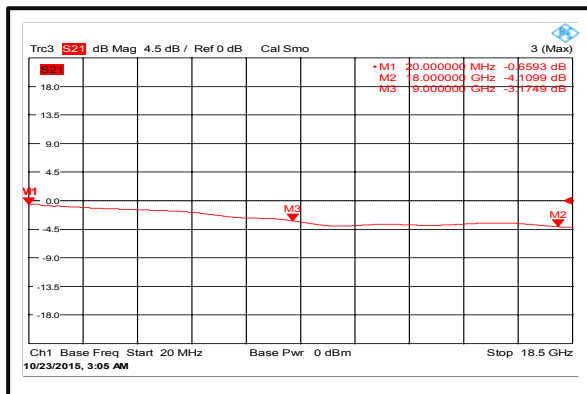
Part No	ECCN	Description
RFSP4TR0018G	EAR99	SP4T 0.02-18GHz PIN Diode Switch

Environment specifications

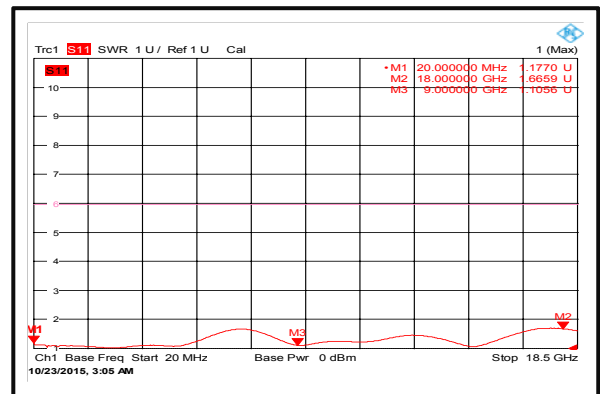
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-55 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°C
Shock	20G for 11msc half sin wave,3 axis both directions

Typical performance plots

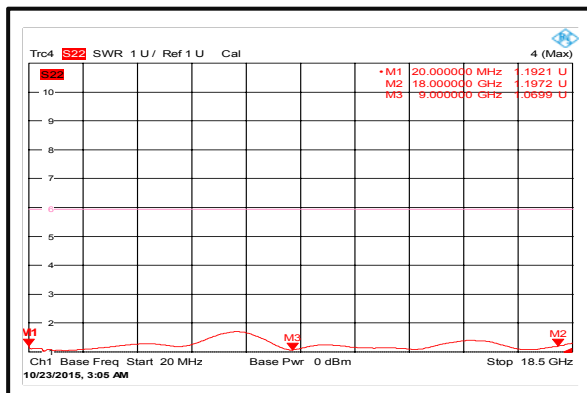
Insertion Loss



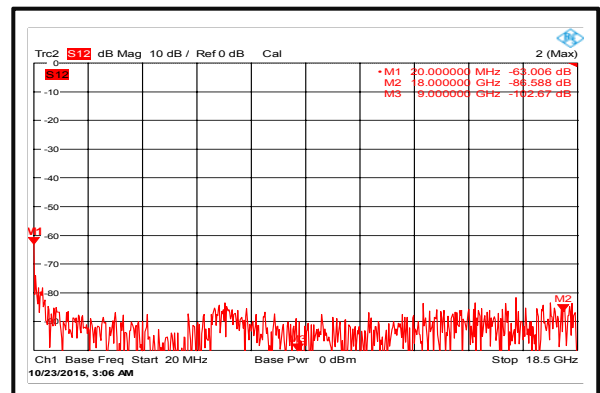
Input VSWR



Output VSWR



Isolation



Reflective Coaxial Single Pole Four Throw Switch 0.02-18GHz

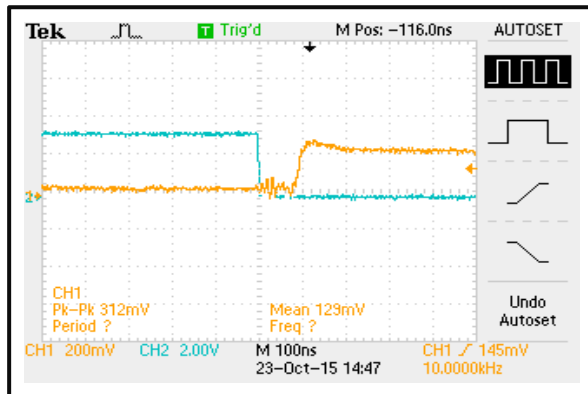


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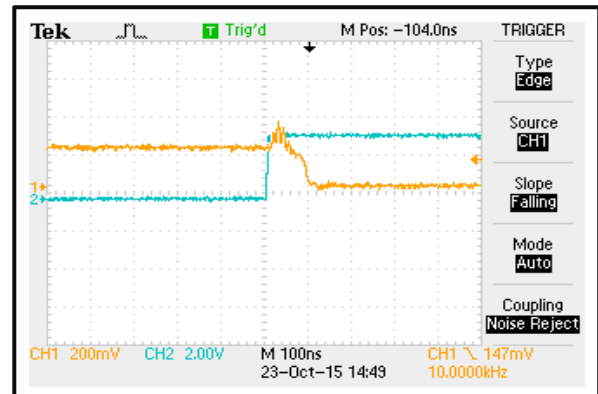
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RFSP4TR0018G

Switching Speed

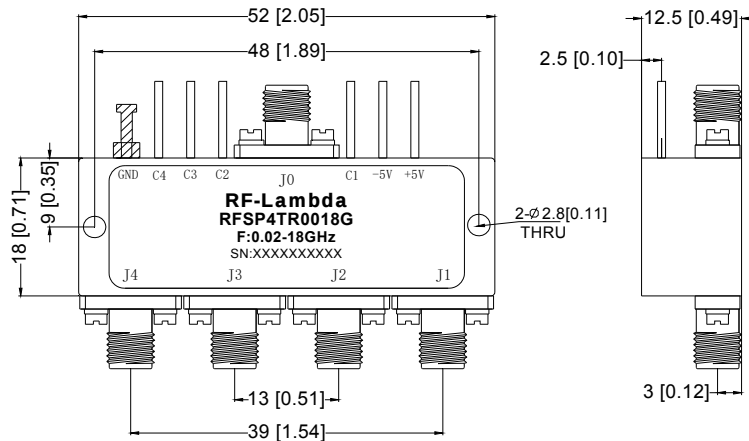


Switching Speed



Outline Drawing:

All Dimensions in mm (inches)



Truth Table

Control Input TTL				Signal Path State
C4	C3	C2	C1	
0	0	0	0	NC
1	1	1	0	Jo-J1
1	1	0	1	Jo-J2
1	0	1	1	Jo-J3
0	1	1	1	Jo-J4
1	1	1	1	off

Control Pin Customization
available upon request



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